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August 23, 2010

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Date

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES
*Ex parte Heiman***

Appeal No. _____

Serial No.: 09/558,329
Filed: April 25, 2000
Group Art Unit: 1786
Examiner: Cheryl Ann Juska
Applicant: Randolph A. Stern and Michael N. Byles
Title: Stitch Bonded Fabric and Fluid-Retaining Fabric Made Therewith
Attorney Docket: STAN-09RE
Conf. No.: 9722

Mail Stop APPEAL BRIEF-PATENTS August 23, 2010
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Dear Sir or Madam:

REPLY BRIEF

This Reply Brief under 37 C.F.R. §41.41(a)(1) is in response to the Examiner's Answer dated August 13, 2010 in the above captioned appeal.

This Reply Brief is filed to focus on specific issues raised by the Examiner's Answer and issues related thereto so that the Board may have a more complete picture of Examiner's rejections and prosecution of this application.

The Examiner's Answer continues to (a) wrongly apply the art mentioned in the Final Official Action mailed April 14, 2010 to support rejection of the claims for anticipation and/or obviousness,¹ (b) in effect ignore (as did the Official Action) the sworn statements of E. Linwood Wright, an expert in the textile industry, as set forth in his Declaration ("Wright Decl."),² and (c) fail to give proper consideration to the recitation in the claims that the yarn face "is effectively continuous such that" the "felt" surface "is not generally exposed".

With respect to the term "felt" in the claims, the Examiner has changed her tune. While she originally ignored the ordinary and customary meaning as clearly set forth in the Wright Decl. (a nonwoven sheet of matted material which has structural integrity, i.e., tensile strength, in all directions; Wright Decl., Paragraph 12), the Examiner has gone so far as to give some passing consideration to that meaning with the indication that "contrary to the Wright Declarations assertion, the fibrous layers of the cited prior art [Sternlieb, Lefkowitz, Ott, and Gillies] do not necessarily contradict appellant's definition of "felt" [emphasis added]."

Examiner's Answer, page 13. Yet, nowhere does the Examiner show that the references actually have "felt" as that term is properly construed; instead, the Examiner puts on Appellants the burden to prove they do not have felt. That is not the law, although it should be noted that in the Appellant's Brief on Appeal, the lack of felt in those references was already explained.

Appellants will not repeat those points here, save to dispel the Examiner's newly discussed

¹ Sternlieb U.S. Patent No. 4,026,129 ("Sternlieb"), Lefkowitz et al U.S. Patent No. 4,181,514 ("Lefkowitz"), Ott U.S. Patent No. 4,675,226 ("Ott"), Gillies et al U.S. Patent No. 5,356,402 ("Gillies"), Kyle et al U.S. Patent No. 4,128,686 ("Kyle"), and Taylor European Patent No. 261,904 ("Taylor").

² A copy of the Wright Decl. and a Supplemental Declaration of E. Linwood Wright was attached in the Evidence Appendix as Exhibits A and B, respectively, of the Appeal Brief filed May 14, 2010. The Supplemental Declaration was filed to make of record Mr. Wright's compensation and that he prepared a declaration for the same assignee in another matter.

mischaracterizations of Sternlieb, Lefkowitz, Ott, and Gillies in the Examiner's Answer at pages 12-16.

First, with respect to Sternlieb, the Examiner states that Sternlieb "teaches that the fibers are "intermingled, non-parallel fibers" which inherently will produce at least some matting and structural integrity". Examiner's Answer, page 13. Blatantly missing from this naked assertion, is any proof, let alone a single citation to any part of Sternlieb, supporting the Examiner's position. Rather, in stark contrast, Sternlieb does not at all teach that its carded fibers are matted or provide structural integrity in all directions. Instead, the layer of carded fibers 1 is unbonded, fluffy, uncompacted, and, thus, unmatted, and further must be reinforced by a woven fabric layer 9. *See Abstract; col. 1, lines 31-40; col. 2, lines 20-26.* Such a layer of web or carded fiber 1 is not felt, as asserted by the expert Mr. Wright: "to one skilled in the art, these layers of unmatted carded fibers and of woven fabric are not felts." Wright Decl., Paragraph 13. Indeed, if that loose layer were attempted to be used as a felt in a prior art incontinent pad, there would be no way for one to effectively handle it in its own right or to reliably attach it to a facing fabric without the layer falling apart, either during handling, or perhaps even after attachment. Not only does the Examiner act improperly by completely disregarding the expert opinion of Mr. Wright, the Examiner further fails to appreciate the actual teachings of Sternlieb.

In addition, even assuming for sake of argument that the fibers in Sternlieb have some structural integrity, this does not at all satisfy the definition of Appellants' felt. Rather, the felt must have structural integrity, i.e. tensile strength, in all directions. And, merely presupposing that some structural strength should exist does not at all equate to providing definitive tensile strength in all directions. The Examiner also implies that because the carded fiber layer is stitchbonded with the woven scrim layer, which allegedly provides more fiber

matting and structural integrity, this somehow lends credence to the notion that Appellant's "felt web" is met by Sternlieb. Examiner's Answer, page 14. It does not. Rather, as discussed above, the carded fiber layer itself does not define a felt or felt web nor does being stitchbonded to a woven scrim layer miraculously convert it to a felt. Instead, the fact that the carded fiber layer must be further reinforced by a woven fabric layer 9 to provide any structural integrity contradicts Examiner's unsupported position and reinforces that of Mr. Wright, an expert in the textile industry. Accordingly, the carded fiber layer of Sternlieb is not at all a felt, as required by the claims.

Next, concerning Lefkowitz, the Examiner similarly (and improperly) disagrees with the expert Mr. Wright "that the batt of relatively brittle fibers in Lefkowitz is necessarily unmatted and without structural integrity." Examiner's Answer, page 14. Specifically, because Lefkowitz teaches that it may be necessary, prior to stitchbonding, to support the batt or increase the batt's integrity for ease in metering into the stitchbonding knitting machine, such as by needling to a scrim substrate, the Examiner is of the opinion that "Lefkowitz teaches a batt having matted fiber (e.g., needle-punched) with at least sufficient structural integrity to pass through a stitchbonding machine". Examiner's Answer, page 14. To conclude, as does the Examiner, that a batt of relatively brittle fibers is a felt as a result, for example, of needling to a scrim substrate not only completely disregards the expert opinion of Mr. Wright but fails to appreciate the actual teachings of Lefkowitz. Indeed, Lefkowitz clearly concedes that the batt, which is made of relatively brittle fibers, does not have structural integrity in its own right because it requires the combination of the batt and something else, e.g., stitch knitting, to "achieve . . . structural integrity" [emphasis added]. Col. 4, line 5. Thus, because the batt of relatively brittle fibers must be purposely reinforced to provide any structural integrity, it cannot

itself be considered a felt in its own right. And, this is supported by the expert Mr. Wright: "to one skilled in the art, a batt of relatively brittle, unmatted fibers is not a felt." Wright Decl., Paragraph 13. Accordingly, the batt of relatively brittle fibers of Lefkowitz is not at all a felt, as required by the claims.

The Examiner also mischaracterizes Ott by disagreeing that "the 'middle layer of cellulose natural fibers and outer layers of layers of either continuous filament thermoplastic fiber, meltblown thermoplastic microfibers or rayon fibers' of the Ott reference are unmatted." Examiner's Answer, page 15. As with Sternlieb, blatantly missing from the Examiner's position is a single citation to any part of Ott supporting her position. Rather, in stark contrast to the Examiner's belief, Ott fails to teach not only that its layers are unmated but nonwoven as well. In particular, the stitch bonded composite wiper 70 of Ott includes a middle layer 78 of cellulose natural fibers and outer layers 76, 74 of continuous filament thermoplastic fibers, meltblown thermoplastic microfibers, or rayon fibers. *See* Abstract; col. 2, lines 30-34; Fig. 2. Ott concedes that its middle layer 78 and outer layers 74, 76 are not felts. More specifically, those layers 74, 76, 78 are disclosed as being low cost alternatives to many nonwoven wipers, for example. *See* col. 1, lines 23-29; and col. 2, lines 40-45. In addition, layers 74, 76 are disclosed as being formed via spunbonding methods while layer 78 is wet or dry formed. Thus, in contrast to the Examiner's baseless assertion, neither layer in Ott results in a nonwoven or matted material. *See* col. 2, line 64 to col. 3, line 4. In support thereof, the expert agrees that the "unmatted inner and outer layers are not felt to one skilled in the art." Wright Decl., Paragraph 13. Hence, none of layers 74, 76, 78 can be a felt as required by the claims. As with Sternlieb and Lefkowitz, not only does the Examiner completely disregard the expert opinion of Mr. Wright, she fails to appreciate the actual teachings of Ott.

Lastly, with respect to Gillies, the Examiner states that "the carded and cross-laid fibers of Gillies . . . inherently possesses some mating or intermingling of fibers and at least some structural integrity." Examiner's Answer, page 15. Again, blatantly missing from this naked assertion, is any proof, let alone a single citation to any part of Gillies, supporting the Examiner's position. Rather, in stark contrast, Gillies does not at all teach that its carded and cross-laid fibers possess matting and structural integrity in all directions, i.e., define the felt as required by the claims. Instead, Gillies discloses a median layer 14 of carded and crosslaid viscose rayon fibers that must be stitch bonded in order to be a cohesive unit and so that it can maintain dispersion and absorbency integrity. Unlike felt, which in its own right is a cohesive unit and has the structural integrity to retain fluid and withstand repeated usages, Gillies explains that its median layer material lacks those qualities. Indeed, the Gillies median layer material must be stitch-bonded to be "maintained as a cohesive unit" (col. 5, line 8) and to achieve the required integrity (col 5., lines 23-27). It is thus not a matted material like a felt, and does not have the required structural integrity in all directions in its own right without the stitch bonding. Thus, the median layer of Gillies is not felt, which is confirmed by the expert: "to one skilled in the art, this median layer of carded and crosslaid viscose rayon fibers is not matted and, thus, not a felt." Wright Decl., Paragraph 13.

In addition, even assuming for sake of argument that the fibers in Gillies have some structural integrity, this does not at all satisfy the definition of Appellants' felt. Rather, felt must have structural integrity, i.e. tensile strength, in all directions. And, merely presupposing that some structural strength should exist does not at all equate to providing definitive tensile strength in all directions. Thus, Examiner fails to establish that the fibers in Gillies are a felt.

Accordingly, it is clear that the anticipation rejections based on Sternlieb, Lefkowitz, Ott, and Gillies are wrong at least because none of these references teaches Appellants' "felt".

The Examiner also continues to ignore recitation in the claims that the yarn face "is effectively continuous such that" the "felt" surface "is not generally exposed" its proper consideration. In particular, in contrast to the Examiner's belief, the Wright Decl. fully explains that the specification and claims are clearly understood so as to provide a sufficient level of objectivity to one skilled in the art to interpret "effectively continuous" and "not generally exposed", especially in the contextual relationship of the purpose of a yarn face relative to the "felt".

The Examiner continues to maintain that the added claim language, i.e., that the yarn face "is effectively continuous such that" the "felt" surface "is not generally exposed", is too subjective to be relied upon for distinguishing the present invention from the prior art. Examiner's Answer, pages 16-17. In particular, the Examiner maintains that "the specification, as originally disclosed, provides no objective or qualitative instruction as to what quantifies as 'effectively continuous such that the corresponding web surface is not generally exposed at the associated yarn face'" insofar as there is allegedly no mention of suitable stitch yarn deniers or diameters, stitch sizes, or stitch densities, for example. Examiner's Answer, page 9. In addition, the Examiner also continues to allege, without any supporting citations or caselaw, that a relative description cannot be relied upon for distinguishing the present invention from the prior art. Examiner's Answer, pages 10 and 16-17. Not so. Indeed, the terms such as "effectively" and "generally" are sufficient in the context of the present invention to guide one of ordinary skill in

the art to understand the metes and bounds of the invention.³ As previously explained, while precision would be ideal, Appellants submit that it is sufficient that the phrase can be construed sufficiently to understand what it does not cover,⁴ which here is a yarn face that has gaps through which the surface of the underlying substrate is readily visible on normal viewing or can be readily touched or felt. In particular, in view of the amount of detail contained in Appellants' specification, the expert Mr. Wright states:

Understandably, one of ordinary skill in the art is readily able to optimize the spacing between the rows of stitch bonded yarns, as based upon yarn density, for a particular application to provide the effectively continuous yarn face(s) of fabric, such stitched yarn face not allowing the felt web surface to be generally exposed upon close inspection. In other words, the felt, or felt web, cannot be readily seen, for example, through the top yarn face unless closely inspected using magnification and does not significantly protrude felt fibers against the patient's skin. Accordingly, "effectively continuous" means that the felt web surface is "not generally exposed," i.e. not readily viewable through the yarn face without magnification and not readily felt [emphasis added].

Wright Decl., Paragraph 10. The Examiner ignores the clear understanding of the expert Mr. Wright based on the objective instruction provided in the specification. The foregoing, nevertheless, proves that the claim language "effectively continuous" and "not generally exposed" is definite and provides a sufficient level of objectivity for one of ordinary skill in the art to determine the scope of the claimed invention.

To that end, not only can one of ordinary skill in the art make that determination, one can also determine whether the references cited by the Examiner disclose such a yarn face. In this case, at least Sternlieb and Lefkowitz are deficient insofar as the "yarn face" has gaps

³ Relative terms as used here have long been accepted in patent examination and upheld by the courts. *See Ecolab, Inc. v. Enirochem, Inc.*, 264 F.3d 1358, 1367, 60 USPQ2d 1173 (Fed. Cir. 2001) (quoting *Pall Corp. v. Micron Separations, Inc.*, 66 F.3d 1211, 1217, 36 USPQ2d 1225 (Fed. Cir. 1995)).

⁴ See, e.g., *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 48 USPQ2d 1117 (Fed. Cir. 1998) where it was not necessary to fully understand the meaning of "when" except to appreciate that it did not reach an occurrence that was at some appreciable time later.

which are readily seen as large enough to allow the underlying substrate to be readily viewed or touched. With respect to Sternlieb, stitches from knitting yarns 11, 13 in Fig. 7 are shown spaced significantly from one another, and with portions of layer as at 31 extending out from the stitchbonding yarns. It is undeniable that with such a construction, there are portions of a layer that are readily visible and easily touched. No matter what interpretation the Examiner might want to give to the claims, such clearly exposed material means that yarn face of Sternlieb is not "effectively continuous such that" the "felt" surface "is not generally exposed". The expert confirms that "it is abundantly clear to one skilled in the art that Sternlieb fails to teach, disclose or otherwise suggest any yarn face as recited in Applicants' claims." Wright Decl., Paragraph 11. The same result is obtained with respect to Lefkowitz, in which a number of stitch yarns 3, 4 are significantly spaced from one another as shown particularly in Figs. 3 and 7 such that the batt material is quite readily seen and touched. Indeed, that must be so in order that the batt perform the filter function without being obstructed by the stitching yarns. The expert confirms that "if the stitch yarns [of Lefkowitz] produced an effectively continuous yarn face as claimed in Applicants' invention, then the filtered material is not able to escape the allegedly effectively continuous face. Therefore, the stitch yarns in Lefkowitz, like those of Sternlieb, cannot be effectively continuous." Wright Decl., Paragraph 11.

Finally, the Examiner's Answer omits discussion of the obviousness rejections wherein Gillies is the primary reference and fails utterly to counter Appellants' arguments thereon. Appellants thus submit that the Examiner has withdrawn those rejections.⁵ The Examiner's Answer instead focuses on the rejections wherein Kyle is the primary reference, and it is to those points Appellants will respond here.

⁵ Appellants continue to maintain that Gillies fails to teach the claimed invention as Gillies does not disclose a "felt". Similarly, Ott fails to teach the claimed invention for at least that same reason. And, even were it obvious to have combined Gillies and Ott, as earlier discussed, the Examiner cannot show that the result would include "felt".

In reply to Appellants' question why one would throw away the facing fabric of Kyle in favor of stitching yarns of Sternlieb, the Examiner states that the obviousness "rejection is not based upon the premise of "throwing away" the facing fabric of Kyle". Rather, the Examiner asserts that it "would have been readily obvious to substitute one known method of attaching the layers (i.e., Kyle's sewing, quilting, bonding, or welding) with another known method of attaching the layers (i.e., Ott, Gillies, and Sternlieb's stitchbonding method)."

Examiner's Answer, page 17. The Examiner is wrong as a matter of law. In particular, the type of stitchbonding of the incontinent pad of Kyle that would be necessary to reach Appellants' claims would change the principle of operation of the incontinent pad of Kyle. Such a required change cannot render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959) (If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious.).

To that end, Kyle is an example of an incontinent pad of the prior art which has a facing fabric (upper sheet 25), which may be a felt, that is either simply placed over, or can be quilted to, a felt layer (absorbent sheet 23 of needle-viscose rayon). A particular object of the incontinent pad of Kyle is to provide an assembly to replace paper incontinence pads presently used on beds and chairs. Col. 3, lines 5-7. With respect to securing the facing fabric to the felt layer, quilting, for example, is used merely as a means for attachment and neither provides nor is intended to provide a yarn face that "is effectively continuous such that" the "felt" surface "is not generally exposed", as required by Appellants' claims. Indeed, this is seen in at least Figure 8 of Kyle wherein stitching 81 is spaced well apart from one another. *See also* col. 12, lines 63-66. Clearly, the facing fabric 25 is quite readily seen and touched. Indeed, that must be so in order

that the facing fabric be exposed, such as to perform its hydrophobic function and allow urine to pass through without being obstructed. Col. 4, lines 51-64. In addition, the facing fabric is already soft and provides a high degree of patient comfort foregoing any need to provide a soft yarn face on top thereof. Col. 4, lines 51-64.

Thus, while one might arguably utilize stitchbonding to secure the facing fabric to the felt layer of Kyle, there is no apparent reason at all to modify the incontinent pad of Kyle to the extreme of providing a stitchbonded yarn face that "is effectively continuous such that" the "felt" surface "is not generally exposed", as required by Appellants' claims.⁶ And, such a modification would change the principle of operation of the facing fabric of the incontinent pad of Kyle, as discussed above, and, thus, cannot render the claims *prima facie* obvious as a matter of law. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

In addition, as previously explained in Appellants' Appeal Brief, even were Kyle to be modified to actually have the exact stitching of Sternlieb, the result would not be the claimed invention. As explained above, the stitching there results in gaps through which the felt is exposed, contrary to the claim requirement of a yarn face that "is essentially continuous" such that the surface of the felt "is not generally exposed". Moreover, with respect to Gillies, as explained by the expert:

Gillies' stitch bonded median layer, as already discussed above, is incorporated between outer layers 12 and 16, thereby effectively hiding within the diaper any yarn face presented on the surface of the median layer. In stark contrast, Applicants' stitch bonded fabric includes a stitch bonded yarn face on the outside of the product to provide a soft, comfortable surface for a patient. Clearly, it is nonsensical, certainly to one skilled in the art, to combine Gillies' stitch bonded median layer with any reference, let alone Kyle, to provide Applicants' stitch bonded fabric having a

⁶ It is readily apparent that the Examiner has specifically used Appellant's own specification as a blueprint to build her own *prima facie* case of obviousness based around Kyle. Appellants submit that such hindsight reconstruction is impermissible and fatal to a §103 rejection.

yarn face that is situated on the outside of the product [emphasis added].

Wright Decl., Paragraph 16.

Finally, Ott is a wiper product and so is intended to present an abrasive surface, which is directly at odds with the nature of at least the top yarn face of the present invention and the facing fabric of Kyle. The expert confirmed that there is no motivation to combine "the wiper product of Ott with an incontinent pad, such as is disclosed in Kyle, in an effort to arrive at Applicants' fabric face product." Wright Decl., Paragraph 16.

For these additional reasons, Appellants further respectfully submit that the Examiner has failed to establish a *prima facie* case of obviousness such that the obviousness rejections should be reversed.

Conclusion

For at least the reasons discussed above, and as set out in Appellant's Brief on Appeal, Appellant respectfully submits that the rejections of claims 1-87 are in error and should be reversed.

Respectfully submitted,

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